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10/820,551	04/08/2004	John K. Apostolides	00478CIPCIPCIP	8386
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KIRKPATRICK & LOCKHART PRESTON GATES ELLIS LLP				
535 SMITHFIELD STREET				
PITTSBURGH, PA 15222				
EXAMINER				
RIVELL, JOHN A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/820,551

Applicant(s)

APOSTOLIDES, JOHN K.

Examiner

John Rivell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/7/07 (req for recon.).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,37-41,44 and 55-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,37-41,44 and 55-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Applicant's arguments filed May 7, 2007 have been fully considered but they are not persuasive.

Claims 19-36, 42, 43, 45-54 and 70-80 have been canceled.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 5, 6, 55 and 58-68 are rejected under 35 U.S.C. §102 (b) as being anticipated by Raines.

The patent to Raines discloses, in figures 2 and 4 for example, a "valve assembly comprising: a first check valve (outlet disk 152) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (152), further comprising an outlet (124) of said first check (152) valve being in fluid communication with at least a portion of a fluid system (represented by conduit C'); a second check valve (inlet disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), said second check (150) valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (150); and, an inlet/outlet port (channel 100 and bore 60) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at a common refill/evacuation location (100)" as recited.

Regarding claim 4, in Raines, said second check valve (at inlet disk 150 is) in fluid communication with at least one (inherent) fluid reservoir" supplying fluid thereto as recited.

Regarding claim 5, in Raines, "at least one quick disconnect connection (at the press in fit between the syringe S and the bore 60 is) operatively associated with said inlet/outlet port" as recited.

Regarding claim 6, in Raines, "at least one fluid component (at syringe S is) in fluid communication with said inlet/outlet port (60, 100)" as recited.

Regarding claim 55, in making and/or using the device of Raines one necessarily performs a "method of performing at least one fluid operation in a fluid system, said method comprising: structuring a first check valve (outlet valve disk 152) to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (152), further structuring said first check valve (152) with an outlet (124) in fluid communication with a first portion of a fluid system (at conduit C); structuring a second check valve (inlet valve disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), further structuring said second check valve (150) to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (150); and, positioning an inlet/outlet port (60, 100) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at a common refill/evacuation location (100)" as recited.

Regarding claim 58, in making and/or using the device of Raines one necessarily further performs a step in which one positions "said second check valve (150) in fluid communication with at least one (inherent) fluid reservoir" supplying fluid thereto as recited.

Regarding claim 59, in making and/or using the device of Raines one necessarily further performs a step in which one "operatively (associates) at least one quick disconnect (read at the press in fit between the syringe S and the bore 60) with said inlet/outlet port (60, 100)" as recited.

Regarding claim 60, in making and/or using the device of Raines one necessarily further performs a step in which one "operatively (associates) at least one fluid component (at syringe S) in fluid communication with said inlet/outlet port" as recited.

Regarding claim 61, in making and/or using the device of Raines one necessarily further performs a step in which one applies "positive pressure at said common refill/evacuation location", as recited, at channel 100 in order to transfer fluid from the channel 100 to the outlet at 122.

Regarding claim 62, in making and/or using the device of Raines one necessarily further performs a step in which one applies "negative pressure at said common refill/evacuation location (channel 100) after said applying positive pressure at said common refill/evacuation location", as recited, in order to refill channel 100 with fluid from the inlet 22 for later dispensation from the outlet 122.

Regarding claim 63, in making and/or using the device of Raines one necessarily further performs a step in which one, by repeated strokes of syringe S performs "at least

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one fluid refill operation by said applying positive pressure at said common refill/evacuation location (channel 100)" as recited.

Regarding claim 64, in making and/or using the device of Raines one necessarily further performs a step in which one performs "at least one filter purge operation by said applying positive pressure at said common refill/evacuation location (100)" as recited. That is, the act of applying positive pressure is read as a "filter purge operation" as the scope of the claim language does not positively define a filter element.

Regarding claim 65, in making and/or using the device of Raines one necessarily further performs a step in which one applies "negative pressure at said common refill/evacuation location", as recited, at channel 100, when the syringe is retracted to permit refilling of channel 100 from inlet 22.

Regarding claim 66, in making and/or using the device of Raines one necessarily further performs a step in which one applies "positive pressure at said common refill/evacuation location (at channel 100) after said applying negative pressure at said common refill/evacuation location (100) upon repeated strokes of syringe S, as recited.

Regarding claim 67, in making and/or using the device of Raines one necessarily further performs a step in which one performs "at least one fluid evacuation operation by said applying negative pressure at said common refill/evacuation location (100)" as recited, either initially or upon repeated stroke of syringe S.

Regarding claim 68, in making and/or using the device of Raines one necessarily performs a "method of performing a fluid operation, said method comprising: structuring a first check valve (outlet valve disk 152) to permit fluid flow therethrough in response to

application of positive pressure at an inlet of said first check valve (152), further structuring said first check valve (152) with an outlet (124) in fluid communication with a portion of a fluid system (at conduit C); structuring a second check valve (inlet valve disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), further structuring said second check valve (150) to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (150); positioning an inlet/outlet port (bore 60, channel 100) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at a common refill/evacuation location (channel 100); applying positive pressure at said common refill/evacuation location (100) to purge at least a pre-filter portion of said portion of a fluid system (at conduit C); applying negative pressure at said common refill/evacuation location (100) to evacuate fluid through said inlet/outlet port (into syringe S); and, applying positive pressure at said common refill/evacuation location to refill at least one fluid through at least said portion of a fluid system" at conduit C, by repeated strokes of syringe S as recited.

Response to Arguments

Applicants arguments concerning the above have been fully considered but are considered to be not well taken.

The argument that:

"the Raines assembly only functions to provide a one-way flow from a source (which is not shown or described in Raines), through an interior of its assembly 10, to a receiver (also not shown or described in Raines). There is no teaching or suggestion in Raines of performing an evacuation procedure, for example, from the receiver back to the source"

is agreed with. However, as applicant recites "one way valves" in the claims at issue, the device envisioned by the claims cannot also perform "reverse" fluid flow. That is, in terms used in applicants arguments, the device of claim 1 for example, cannot draw fluid in from a receiver to which fluid was delivered and pass fluid backwards through the first one way check valve, flow to the inlet/outlet/ port and then pas fluid backwards through the second one way check valve to the original source of fluid.

For example, in interpreting applicants claim against the specification, it is believed that figure 36, and the attending description at para [0171] most closely match. In figure 36, the "first check valve" at valve 2602 passes fluid one way only from the inlet at 2602A and common inlet/outlet port 2616 to the outlet at 2602B. Likewise the "second check valve" at 2608 passes fluid from a source at its inlet 2608A one way through the valve to the outlet t 2608B and to common inlet/outlet port 2612. Port 2612 is disclosed as being connected to an external pump. The pump draws fluid out of or supplies fluid to the common area at 2604. Fluid cannot, by the nature of one way valves, flow backwards through the one way valves 2602 and 2608.

Applicants further argument that:

"Raines does not disclose or suggest any structure which is functionally equivalent to the "inlet/outlet port in fluid communication with said inlet of said first check valve and said outlet of said second check valve at a common refill/evacuation location" as claimed"

is not believed well taken.

In comparison to Raines, the "inlet/outlet port" is shown in Raines at pump connection 60 and channel 100. At this location, fluid is "evacuated" from the system during the pump or syringe suction stroke or when the syringe moves away from the connection at port 60. Fluid is "supplied" to the system during the syringe pressure stroke or when the syringe moves toward the connection port 60. The "common refill/evacuation location" at 100 is clearly "in fluid communication with the inlet of the "first check valve" read at outlet valve disk 152. The "common refill/evacuation location" at 100 is clearly "in fluid communication with the outlet of the second check valve" read at inlet valve disk 150. Each of these valves correspond directly to the "one way valves" claimed and illustrated in application figure 36.

The further argument concerning evacuation of the system and refilling of the system are clearly functions envisioned by the disclosed embodiments. However, the claimed embodiment cannot do both at once when connected to a single unmodified pump unless that pump is capable of providing both suction and pressure to the common inlet/outlet port, like a syringe for example.

Additionally, the apparatus claims at issue only recite structure of a "valve assembly". There is no claim language relative to a method of use directed to separately evacuating and separately refilling a system. As set forth explicitly above, all of the structural elements of the claims find their equivalents structure and function of the device of Raines.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 56, 57 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raines in view of Gargas.

The patent to Raines discloses all the claimed features with the exception of having "said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter".

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a "pre-filter portion" of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Raines a filter element downstream of the pump assembly, in conduit C, thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Claims 7, 10-13, 16-18, 37, 40, 41 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raines.

Raines discloses the claimed invention except for additional "valve assemblies" including "second" and "third" valve assemblies, each additional assembly including a respective inlet and outlet check valves connected to a common "refill/evacuation location" its own "reservoir" connected to the inlet, its own "quick disconnect connection" at the common port and its own "fluid component" associated with the common port.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the valve assembly of Raines such that one employs multiple separate individual valve assemblies to transfer fluid from respective individual inlets to respective individual outlets, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

In comparing the claim language at issue with the single valve assembly of Raines, it is clear that the claim language merely reflects multiple individual separate assemblies, each one of which is no different than the other or from that assembly demonstrated to be known by Raines.

Claims 8, 9, 14, 15, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raines, as applied to claims 7, 10-13, 16-18, 37, 40, 41 and 44 above, further in view of Gargas.

The patent to Raines, as modified under §103 above, discloses all the claimed features with the exception of having "said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter".

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a "pre-filter portion" of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Raines a filter element downstream of the pump assembly, in conduit C, thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus

preventing blockage of the system by such filtered contamination as recognized by Gargas.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raines, as applied to claims 7, 10-13, 16-18, 37, 40, 41 and 44 above, further in view of Hayes.

The patent to Raines, as modified under §103 above, discloses all the claimed features with the exception of having "said check valve (comprise) a cartridge type check valve... structured to be threaded into one of said assemblies".

The patent to Hayes discloses that it is known in the art to employ "at least one" cartridge type check valve at valve bushing 14, containing the ball valve head 16 and seat element replaceable as a unit, which cartridge type valve is "threaded into" assembly for the purpose of removal for potential replacement and/or repair.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Raines, as modified under §103 above, a cartridge type check valve in place of either or both check valves 150, 152 of Raines, for the purpose of removal for potential replacement and/or repair as recognized by Hayes.

Applicants remaining arguments rely on the alleged allowability of the independent claims to which the dependent claims rely on.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John Rivell
Primary Examiner
Art Unit 3753

j.r.